

**PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
UKEREWE DISTRICT COUNCIL**



**FORM ONE EXAMINATION
CHEMISTRY**

Time 2:30 Hours

Year 2025

INSTRUCTIONS

- This paper consist of sections **A,B** and **C**
- Answer all questions in section **A, B** and **C**
- All writing must be in blue or black ink
- All answers must be written in the spaces provided.
- Cellular phones are not allowed in the examination room
- Write your Examination Number at the top right corner of every page

**SECTION A (15 Marks)
Answer all questions in this section**

1. For each of the items (i)-(x), choose the correct answer from the given alternatives and write its letter in the box provided.
 - i. Which of the following groups consists of home care products?
 - A. Yeast, plastics and disinfectants
 - B. Paints, air fresheners and petrol
 - C. Rubbers, clothes and soaps
 - D. Detergents, disinfectants and air fresheners
 - ii. What are the apparatus used to grind the granules of a certain chemicals to fine powder?
 - A. Pestle and filter funnel
 - B. Beaker and evaporating dish
 - C. Mortar and pestle
 - D. Pestle and crucible
 - iii. What Fractional distillation is possible if the mixture constituents differ in _____
 - A. Boiling points

- B. Melting points
- C. Vaporizing points
- D. Freezing points
- v. When water freezes, it undergoes;
 - A. A physical change
 - B. Vaporization
 - C. A chemical change
 - D. Sublimation
- vi. When a small amount of common salt is dissolved in water, the mixture so formed is;
 - A. Homogeneous
 - B. Immiscible
 - C. Heterogeneous
 - D. Suspension
- vii. What type of fire is caused by burning of cooking oils and fats?
 - A. Class A
 - B. Class F
 - C. Class B
 - D. Class C
- viii. Which one of the following sets of laboratory apparatus are used for measuring volume of liquids?
 - A. Conical flask, measuring, cylinder and test tube
 - B. Burette, pipette and measuring cylinder
 - C. Volumetric flask, water trough and burette
 - D. Gas jar, measuring cylinder and pipette
- ix. A form one student saw the 'flammable' sign on a box and made the following possible Interpretations. Which one is the most correct?
 - A. The box contained firewood
 - B. The box contained papers
 - C. The box had radioactive materials
 - D. The box contained spirit used in lamps

x. Syrups are examples of;

- A. Solutions
- B. Suspensions
- C. Homogeneous mixtures
- D. Filtrates

2. Match the chemical constituents in **List A** with the corresponding in **List B** by writing the letter of a correct response below the item number in the table provided.

LIST A		LIST B
i)	It allows air to enter the burner.	A. Chimney
ii)	It supports burner	B. Flame
iii)	It regulates the amount of air.	C. Jet
iv)	It directs to the barrel/ chimney.	D. Air hole
v)	It lets the gas on from the gas supply.	E. Bunsen burner
		F. Collar
		G. Gas hole
		H. Base

SECTION B (70 marks)

3. (a) Define the term **suspension** as used in chemistry.

(2 marks)

(b) List down any two general components of each of the following.

(4 marks)

- i. Solution = and
- ii. Aerosol = And

(c) Write down one method of separating mixture used to obtain each of the following substances from its mixture; (4 marks)

- i. Cooking oil from groundnuts
- ii. Chlorophyll or green pigment from plant leaf
- iii. Oxygen gas from air
- iv. Sulphur from mixture of Sulphur and sand

4. (a) The laboratory technician planned to label warning signs on the containers found in laboratory. Suggest the name of warning sign he could label on the containers containing the following:-

- (i) Rat poison
- (ii) Methylated spirit
- (iii) Hydrogen peroxide
- (iv) Concentrated sulphuric acid
- (v) Cooking gas

(b) Arrange the following steps of lighting the Bunsen burner in a correct using letter **A** to **F**

- A.** Turn the collar to let air in through the air hole until you get a non-luminous flame.
- B.** Quickly bring a flame at the top of the barrel
- C.** Connect the Bunsen burner by rubber tube to the gas source
- D.** Put off the flame of the burner after finish heating by turning the gas tap off.
- E.** Close the air holes.
- F.** Turn the gas tap on to let in sufficient gas.

Answer

Step	1	2	3	4	5	6
Letter						

b. Give two reasons to why a candle is not suitable for heating purpose when doing experiments in the laboratory

5. (a) Most farmers in the rural areas were interested to know how the knowledge of chemistry is necessary in agricultural activities. Assume you are a chemist; educate these farmers by giving **five** points.

(b) Form one students were arguing if water is a compound or mixture. They went to their brothers in form two to seek for the correct explanation. What could be the possible explanation of what water is?

Water is Because (five points)

6. (a) A student was preparing food for her family using hot oil on frying pan. Accidentally, the pan tipped over and a huge fire spread on the kitchen floor.

(i) Which fire extinguishers would be suitable for putting off the fire?

(ii) Which fire extinguisher would not be suitable for putting off the fire? Explain

(b) Giving a reason, state whether the rust will form or not in each of the situation (i)- (vi)

- (i) Iron bar is dipped into boiling water
- (ii) Painted iron is dipped into un-boiled water
- (iii) Iron bar is dipped in un-boiled water
- (iv) Oiled iron bar is left outside the room over night
- (v) Aluminium wire is dipped in un-boiled water
- (vi) A dry iron bar is wrapped with cotton wool

7. (a) Suppose you have been appointed by a chemistry teacher to prepare a morning speech basing on different definitions in “Laboratory techniques and safety”. Elaborate on how you would prepare your presentation on the following concepts;

- i. A laboratory
- ii. A laboratory rule

- iii. A laboratory measure
- iv. A chemistry laboratory
- v. A chemistry apparatus

(b) As an expert in chemistry, after completing school you would meet with an individual who completely does not know that studying chemistry is meaningful in our daily life. Give five (5) reasons to educate that individual on the benefits of studying chemistry.

8. (a) Some of the elements have their symbols completely different from their common English names.

(i) Where are the symbols derived from?.....

(ii) List any four (4) elements of this kind

English name	Latin Name

(b) The chemistry teacher asked Amina to list two elements which she knows. Amina wrote Al and O. Why did she use letters instead of writing their full names? Give two (2) reasons.

(c) Form one students were arguing that solutions and suspension have the same appearance. Were they correct? Give two (2) reasons.

9. (a) The headmaster of a certain school bought a small box which had a sign of red cross. Most of the form one students did not have the knowledge about that box. By using knowledge that you have learnt from chemistry answer the following questions.

(i) What is the name of that box?

(ii) Briefly explain the functions of the following possible items that can be found in a box

Item	Uses
Pain killer	
Adhesive bandage	
Petroleum jelly	
Iodine tincture	

(b) The government announced the tender for building laboratory and you want to take that tender explain what things should be considered when building chemistry laboratory (five points)

SECTION C (10 marks)

10. Matter may change from one state to another. Explain six (06) significances of changes in state of matter in daily life

